

1 1. A guidewire for inserting into body passageways during medical procedures

2 comprising:

3 a length of titanium molybdenum alloy wire.

1 2. A guidewire for inserting into body passageways during medical procedures as in

2 claim 1 wherein,

3 the length of titanium molybdenum alloy wire has a proximal end and a distal
4 end, the distal end being of a smaller diameter and therefore softer than the proximal end.

1 3. A guidewire for inserting into body passageways during medical procedures as in

2 claim 2 having,

3 a gradient of softness between the distal end and the proximal end with the distal
4 end being softer.

1 4. A guidewire for inserting into body passageways during medical procedures as in

2 claim 2 having,

3 a taper of the diameter between the distal end and the proximal end with the distal
4 end being smaller.

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1 5. A guidewire for inserting into body passageways during medical procedures as in
2 claim 2 having,

3 a distal end having a coil wrapped around, with the coil touching the distal end
4 such that the coil provides springiness at the distal tip and touches the distal tip to prevent
5 kinking of the coil.

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1 6. A guidewire for inserting into body passageways during medical procedures as in
2 claim 2 having,

3 a distal tip on the end of the distal end to prevent the distal end from penetrating
4 tissue in the wall of a passageway.

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1 7. A guidewire for inserting into body passageways during medical procedures as in
2 claim 2 wherein the titanium molybdenum alloy wire comprises approximately 78%
3 titanium 11.5% molybdenum 6% zinc and 4.5% tin by weight.

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1 8. A guidewire for inserting into body passageways during medical procedures as in
2 claim 2 wherein the titanium molybdenum alloy wire comprises approximately between
3 about 75 % and about 83 % titanium, between about 8 % and about 14 % molybdenum
4 between about 4 % and about 8 % zinc and between about 2 % and about 6 % tin by
5 weight.

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1 9. A guidewire for inserting into body passageways during medical procedures

2 comprising:

3 obtaining a titanium molybdenum alloy wire,

4 grinding the distal end to make a smaller diameter,

5 attaching a coil to the distal end

6 attaching a distal tip to the distal end.

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1 10. A guidewire for inserting into body passageways during medical procedures as in

2 claim 9 with the further step of,

3 tapering the distal end to provide a gradient of softness.

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1 11. A guidewire for inserting into body passageways during medical procedures as in

2 claim 9 with the further step of,

3 heat treating the distal end to provide a gradient of softness.

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